

Patent Claims

1. Milking device with at least one teat cup, which comprises an internal cavity (6) for the accommodation of the teat of an animal to be milked through an opening (10) in the teat cup and a pulse cavity (8), which is separated from the internal cavity (6) by a teat rubber (4) and which can be connected to a source of negative pressure,
characterized in that
a cleaning and / or disinfecting device with at least one mandrel (14), which comprises at least one outlet (16) for fluid which can be connected through the opening (10) to the internal cavity (6) as well as a device (12, 14, 30), assigned to the mandrel (14), for checking the behavior of the teat rubber.
2. Milking device according to Claim 1, **characterized in that** the mandrel (14) comprises a sealing surface (20) which contacts the teat rubber (4) for sealing.
3. Milking device according to Claim 1 or 2, **characterized by** at least one pressure measurement probe (38, 28, 32), with which the absolute pressure prevailing in the internal cavity (6) can be measured.
4. Milking device according to one of the previous claims, **characterized in that** the pressure measurement probe is formed such that the pressure change of a fluid contained in the internal cavity can be acquired.
5. Milking device according to one of the previous claims, **characterized in that** the pressure measurement probe (18) is arranged on the mandrel (14) connected to the internal cavity (6) without mechanical contact with the teat rubber (4).
6. Milking device according to one of the previous claims, **characterized by a** pressure measurement probe (30) which replicates the teat geometry and which acquires a contact pressure acting on the outer circumferential surface of the



pressure measurement probe (30) and applied by the teat rubber (4).

7. Milking device according to one of the previous claims, **characterized in that** the pressure measurement probe (26) is arranged as a tactile sensor on an outer circumferential surface of the device, subject to the action by the wall of the teat rubber (4), for the direct checking of the teat rubber movement.
8. Milking device according to one of the previous claims, **characterized in that** a membrane is arranged on a circumferential surface of the device for the direct checking of the teat rubber behavior, the said surface being subject to the action of the teat rubber (4), the said membrane covering a pressure measurement chamber (38) filled with a fluid and that the pressure sensor (40) communicates with the pressure measurement chamber (38).
9. Milking device according to one of the previous claims, **characterized in that** the device for the direct checking of the teat rubber behavior includes at least one temperature measurement probe.
10. Method for milking a dairy animal with a device according to one of the previous claims, **characterized in that** the behavior of the teat rubber is acquired with a pressure difference profile acting between the pulse cavity and the internal cavity during a cleaning and / or disinfecting phase.
11. Method according to Claim 10, **characterized in that** the absolute pressure prevailing in the internal cavity is measured.
12. Method according to Claim 10 or 11, **characterized in that** the pressure difference profile is set in accordance with the pressure difference profile prevailing during milking.
13. Method according to one of the Claims 10 to 12, **characterized in that** the teat rubbers of many teat cups, preferably combined in a milking device, are checked



simultaneously and that, with the faulty behavior of several teat rubbers, a signal is produced to indicate a milking system fault.

14. Method according to one of the Claims 10 to 13, **characterized in that** a pressure prevailing in the pulse cavity and / or in the internal cavity is measured by pressure sensors arranged on the teat cup.
15. Method according to one of the Claims 10 to 14, **characterized in that** the data representing the behavior of the teat rubber is passed to an evaluation device and is compared with reference data which reproduces a set-point state of the teat rubber.
16. Method according to one of the Claims 10 to 15, **characterized in that** the data representing the behavior of the teat rubber is displayed at a milking station terminal.
17. Method according to Claim 16, **characterized in that** a signal, triggered by the evaluation device, is output at the milking station terminal when the data representing the behavior of the teat rubber lies outside of a predetermined tolerance interval.
18. Method according to one of the Claims 10 to 17, **characterized in that** the teat rubber is tempered.
19. Method according to Claim 18, **characterized in that** a tempered cleaning and / or disinfecting fluid is introduced into the internal cavity.
20. Method according to one of the Claims 10 to 19, **characterized in that** first a number of pulse cycles are run over a predetermined time, then the tempered fluid is introduced into the internal cavity and finally the behavior of the teat rubber is checked.



21. Method according to one of the previous claims, in which the milking device is automatically applied to the udder of the animal to be milked, **characterized in that** the milking device is automatically cleaned after each milking of a single animal and the teat rubber behavior is automatically checked.

